

**Work Order ID 44405**

Friday, June 26, 2009 9:16:39 AM



Page 1

Item ID: D350-689-021

Accept



Setup Start



Revision ID: A

Stop



Item Name: Dual High Back Seat, LH

Start Date: 6/15/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 8/3/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
----------	--------------

DSI9419	Rev A
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100

0.00



DC

Document Control

DOCUMENT CONTROL

Memo

Photocopy bluefile and create labels per PPP D350-689-021 CHG001

EZNO9-609 ADDED. 09/06/16

for JLD 09/02/02

S 09/02/15

110

0.00



Packaging

Packaging

Pick Kit

Memo

0.00

P 09/2/15 @

120

0.00



QC

Quality Control

QC4- 100% Inspect kits for completeness

Memo

0.00

=&gt;

S 09/02/15

(X1)

f

Date: Tuesday, 06/01/2009 10:05:20 AM  
 User: Julie Dawson

## Process Sheet

<b>Customer</b>	: CU-DAR001 Dart Helicopters Services	<b>Drawing Name</b>	: DUAL HIGH BACK SEAT INSTALLATION, LH
<b>Job Number</b>	: 44405		
<b>Estimate Number</b>	: 13704		
<b>P.O. Number</b>	:	<b>Part Number</b>	: D350689021
<b>This Issue</b>	: 06/01/2009	<b>S.O. No.</b>	:
<b>Prsht Rev.</b>	: NC	<b>Drawing Number</b>	: DSI9419 REV.A
<b>First Issue</b>	: / /	<b>Project Number</b>	: N/A
<b>Previous Run</b>	:	<b>Drawing Revision</b>	: A
	<b>Type</b> : LARGE FAB ASSY	<b>Material</b>	: N/A
<b>Written By</b>	:	<b>Due Date</b>	: 20/01/2009
<b>Checked &amp; Approved By</b>	: <u>Julie Dawson</u>	<b>Qty:</b>	1 <b>Um:</b> Each
<b>Comment</b>	: Est Rev:A 08-12-23 new issue DD verified by: LL 08.12.24		

## Additional Product

Job Number:



<b>Seq. #:</b>	<b>Machine Or Operation:</b>	<b>Description :</b>
----------------	------------------------------	----------------------

1.0

✓ DC

DOCUMENT CONTROL

**Comment:** DOCUMENT CONTROL

Photocopy bluefile and create labels per PPP D350-689-021 CHG001

2.0

PACKAGING 1

PACKAGING RESOURCE #1

**Comment:** PACKAGING RESOURCE #1

Pick Packing Kit

3.0

✓ D350689023

Energy Attenuating Floor Provisions

**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Energy Attenuating Floor Provisions

batch: \_\_\_\_\_

4.0

✓ D350689043

Dual High Back Seat Assembly

**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Dual High Back Seat Assembly

batch: \_\_\_\_\_

5.0

D30181

Seat Cushion

**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

1 D3018-1

Seat Cushion

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Tuesday, 06/01/2009 10:05:20 AM  
User: Julie Dawson

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: DUAL HIGH BACK SEAT INSTALLATION, LH

Job Number: 44405

Part Number: D350689021

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

D30191

Seat Cushion



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick: Packing Kit

Qty Part Number Description Batch

1 D3019-1 Back Cushion \_\_\_\_\_

7.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

8.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D350-689-021

Location: \_\_\_\_\_

PPP Rev: \_\_\_\_\_

9.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D350-689 REV. A  
AND FLIGHT MANUAL SUPPLEMENT FMS-D350-689 REV. A  
AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D350-689 REV. 0  
REF. CANADIAN STC: SH02-33  
REF. FAA STC: SR01620NY

## PURPOSE

The purpose of this DSI is to add the D350-689-021 Dual High Back Seat Installation, LH, the D350-689-023 Floor Provisions Kit and the D350-689-043 Dual High Back Seat Assembly to IIN-D350-689 Rev. A. The D350-689-021/-023 Kits are compatible with the Energy Attenuating Seat rails in later AS 350/355 model aircraft.

The DSI 9419-011 Kit includes the parts that are required to convert a D350-689-011 installation into a D350-689-021 installation.

## PART LIST

-011	-021	-023	-043	P/N	DESCRIPTION
X				DSI 9419-011	ENERGY ATTENUATING CONVERSION KIT
	X			D350-689-021	DUAL HIGH BACK SEAT INSTALLATION, LH
	1	X		D350-689-023	ENERGY ATTENUATING FLOOR PROVISIONS KIT
	1		X	D350-689-043	DUAL HIGH BACK SEAT ASSEMBLY
			2	D3016-041	SEAT FRAME ASSEMBLY
			1	D3017-041	BACK FRAME ASSEMBLY
	1			D3018-1	SEAT CUSHION
	1			D3019-1	BACK CUSHION
			1	D3021-041	TUBE ASSEMBLY
			1	D3022-1	SEAT PAN
			1	D3023-1	BACK PANEL
			3	D3024-1	SPACER
		1		D3025-1	BEAM
		1		D3026-1	CHANNEL
		1		D3027-1	CLIP
		1		D3027-3	CLIP
		1		D3027-5	CLIP
		4		D3027-7	CLIP
			2	D3031-1	LOOP
1		1		D3234-1	DOUBLER
1		1		D3234-3	DOUBLER
2			2	D3808-041	SEAT RAIL ASSEMBLY
4			4	D3809-1	SLIDING BLOCK
1		1		D3811-041	SEAT TRACK ASSEMBLY

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BY:   
D. SHEPHERD (DE # 02)

DATE: Aug. 19/2008  
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-011	-021	-023	-043	P/N	DESCRIPTION
			3	AN3-12A	BOLT
14		14		MS20426AD4-5	RIVET
34		34		MS20470AD4-5	RIVET
18		18		MS20470AD4-6	RIVET
		32		MS20470AD5-6	RIVET
			40	MS20600AD4W2	RIVET
			6	MS20600AD4W3	RIVET
9		9	23	MS21042L3	NUT (or MS21042-3)
			4	MS24693-S272	SCREW
8			8	MS24694-S3	SCREW
9		9		MS24694-S50	SCREW
4			4	MS24694-S148	SCREW
			4	MS27039-1-17	SCREW
			12	MS27039-1-19	SCREW
			23	NAS1149D0332J	WASHER (or AN960JD10L)
9		9		NAS1149D0363J	WASHER (or AN960JD10)

## PROCEDURE

1. Install the under floor structure as outlined in steps 1-18 of IIN-D350-689 Rev. A and DSI 9311 Rev. A as applicable, except do not install D3032-1 Spacers. Attach D3026-1 Channel to floor using (14) MS20426AD4 rivets. Ensure D3234-1/3 Doublers are installed per DSI 9269 Rev. A.
2. Position the D3811-041 Seat Track Assy at LBL 27.33 as shown in Figure 1 to be in-line with the existing seat rails at LBL 8.98 and LBL 19.16.
3. Transfer the attachment holes from D3811-041 Seat Track Assy to aircraft floor (9 pls) using a  $\phi 0.201$  (#7 drill). Deburr holes. Install D3811-041 using (9) MS24694-S50 screws, (9) NAS1149D0363J washers, and (9) MS21042L3 nuts as shown in Figure 1. Torque screws to 20 to 25 in-lbs (2.3 to 2.8 Nm).
4. If converting a -041 Seat Assembly to a -043 Seat Assembly, remove D3028-1 Studs, D3029-1 Springs, and D3030-1 Locks from the D350-689-041 Seat Assembly. Install (2) D3808-041 Seat Rails Assemblies as shown in Figure 1 Detail A using (4) MS24694-S148 Screws. Torque screws to 100 to 140 in-lbs (11.3 to 15.8 Nm). Install D3809-1 Sliding Blocks using (2) MS24694-S3 screws as shown in Figure 1 Detail A. Torque screws to 12 to 15 in-lbs (1.4 to 1.7 Nm).
5. Remove screws from back end of Seat Tracks at LBL 27.33 and LBL 8.98. Slide D350-689-043 Seat Assembly into both seat tracks and lock in desired position using D3810-1 Retractable Spring Plungers. Re-install screws on back of seat tracks per the Aircraft Maintenance Manual.




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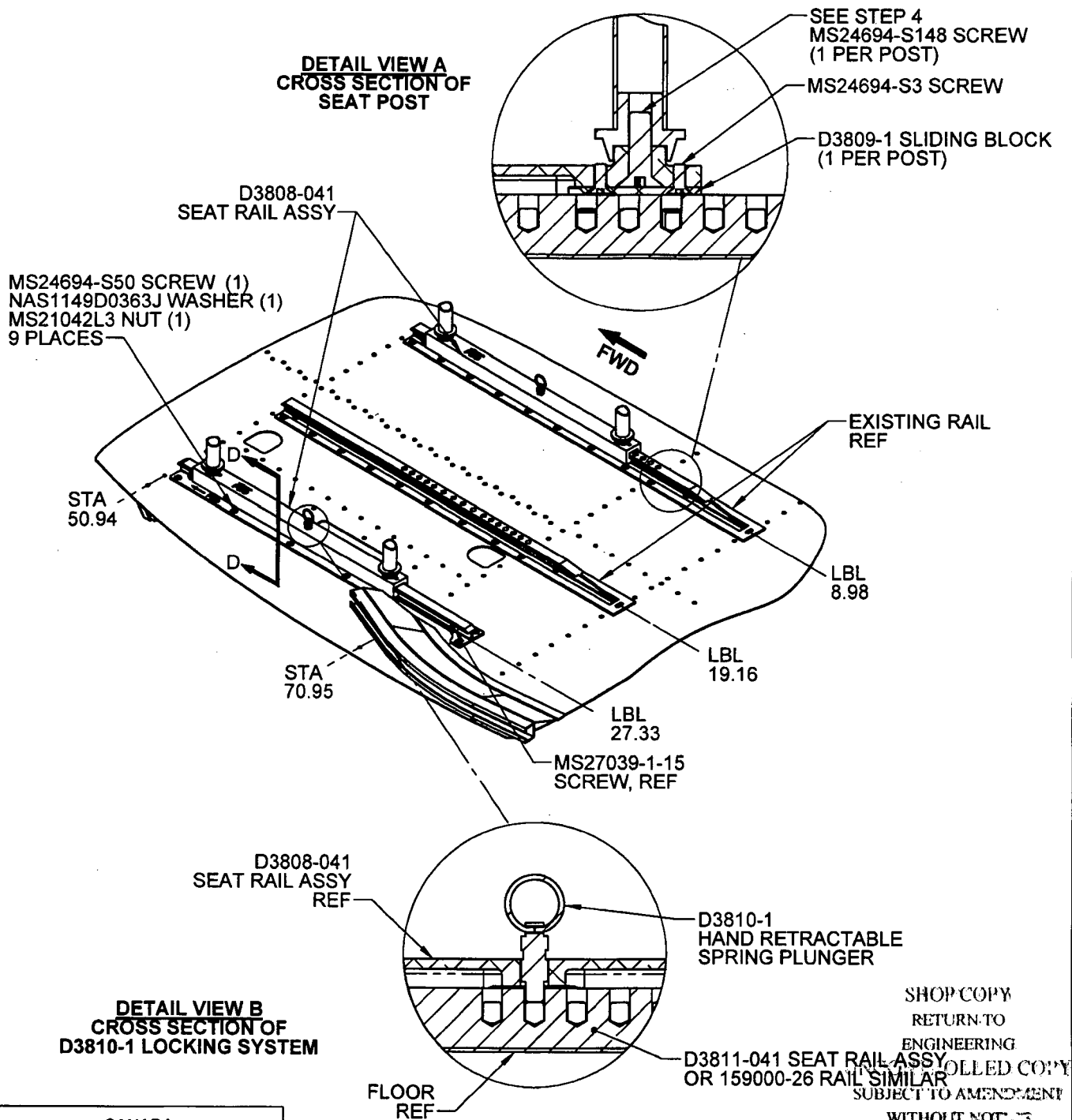
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BY:   
D. SHEPHERD (DE # 02)

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**FIGURE 1 D350-689-021 INSTALLATION**

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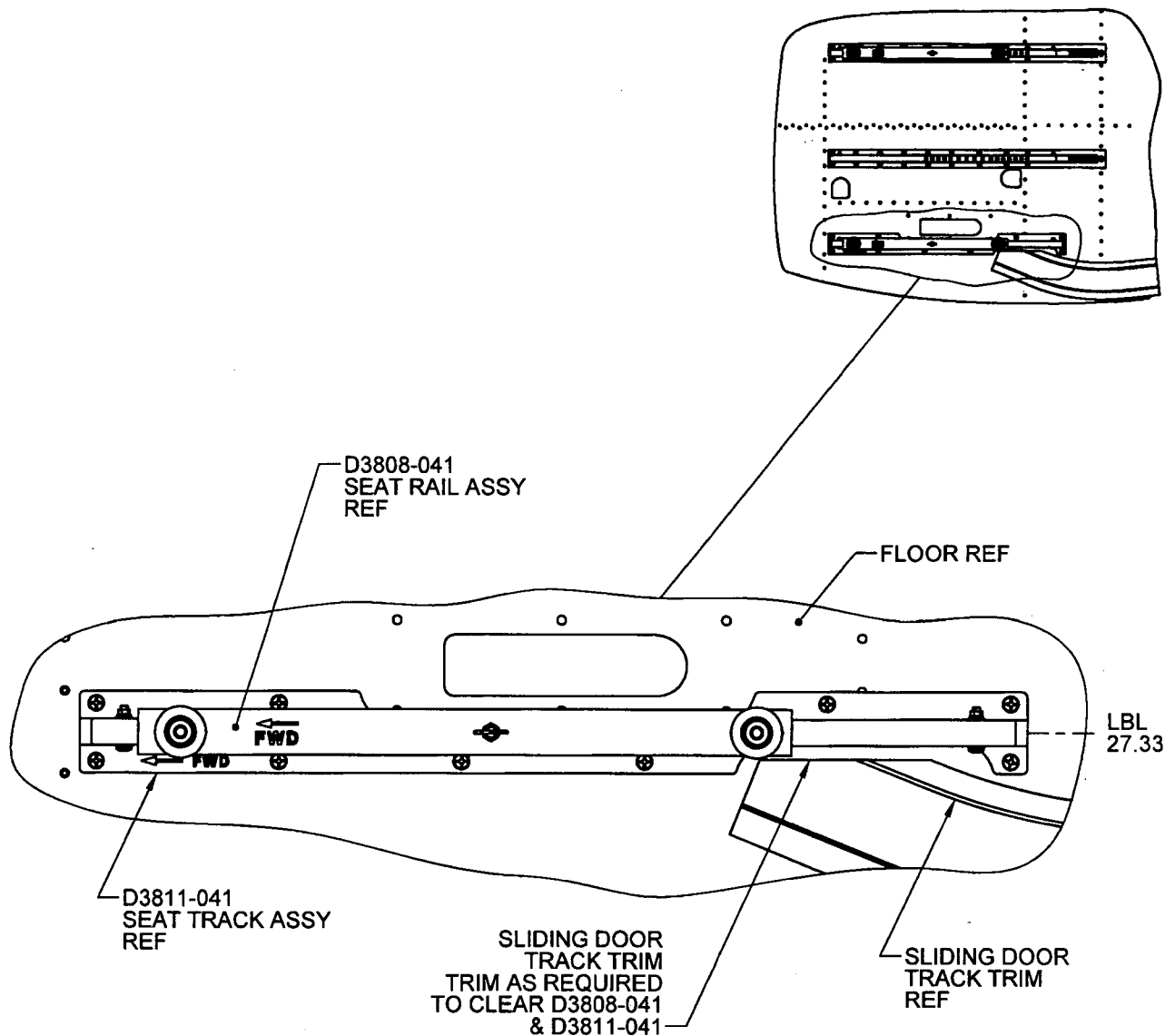
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**DETAIL VIEW C  
SLIDING DOOR TRACK TRIM**

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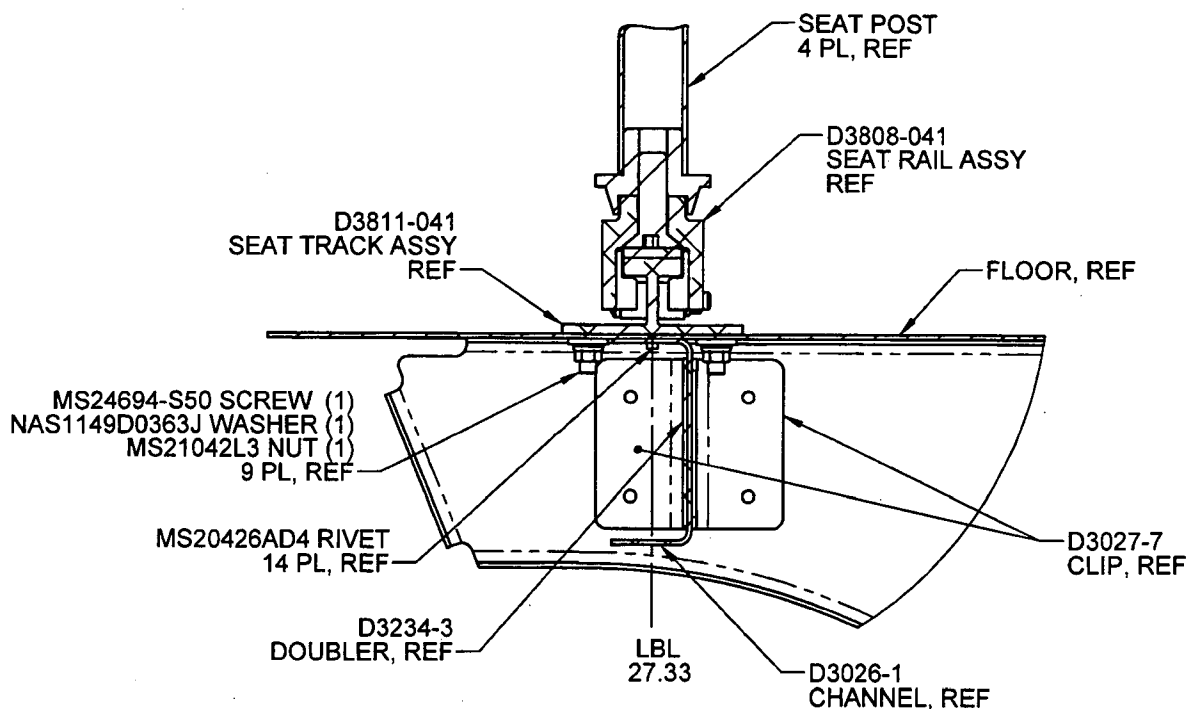
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**CROSS SECTION D-D**

## WEIGHT AND BALANCE

The following is the net weight increase associated with the Kits.

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
DSI 9419-011 Energy Attenuating Conversion Kit	1.1 lb 0.50 kg	-18.2 in -0.46 m	-20 in-lb -0.2 m-kg	60.7 in 1.54 m	67 in-lb 0.77 m-kg
D350-689-021 Dual High Back Seat Installation, LH Fwd Position	28.6 lb 13.0 kg	-18.2 in -0.46 m	-521 in-lb -6.0 m-kg	60.7 in 1.54 m	1736 in-lb 20.0 m-kg
D350-689-021 Dual High Back Seat Installation, LH Aft Position	28.6 lb 13.0 kg	-18.2 in -0.46 m	-521 in-lb -6.0 m-kg	64.7 in 1.64 m	1850 in-lb 21.3 m-kg
D350-689-023 Energy Attenuating Floor Provisions Kit	2.5 lb 1.1 kg	-18.2 in -0.46 m	-46 in-lb -0.5 m-kg	62.2 in 1.58 m	156 in-lb 1.7 m-kg

## REVISED LOADING CHART

With respect to the Loading Chart in FMS-D350-689, when the Dual High Back Seat has been installed in an aircraft with Energy Attenuating Seat rails per this DSI, the occupants are located at STA 61.02 when the seat is in the Fwd position and at STA 65.02 when the seat is in the Aft position.

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